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ABSTRACT

The extent to which primary school students participating in an English-Ukrainian bilingual program in Manitoba, Canada, were acquiring skills in Ukrainian and English language arts was evaluated for the 1981-1982 school year. This program, which was instituted in 1979, provides half of the instruction in English and half in Ukrainian. Using "Ukrainian Language Tests," scores were collected on first-grade students and third-grade students. The "Metropolitan Achievement Test-Primer Level" (MAT) was administered to first-grade students in the bilingual and regular programs, and the "Canadian Tests of Basic Skills--Level 9" (CTBS) was administered to third-grade bilingual students and control-group students. After about 2.5 years in the program, students were performing at about the 75 percent level on Ukrainian oral skills, and were developing reading and writing skills. After 4 months in the program, students' English language skills were not as advanced as those of control-group students, but by grade 3, these differences disappeared. It is concluded that students in the English-Ukrainian bilingual program are developing English language arts skills at a level comparable to that displayed by students in the regular program, as well as learning the Ukrainian language. (SW)

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AN EVALUATION OF THE ENGLISH-UKRAINIAN BILINGUAL PROGRAM: FINAL REPORT

Prepared for:

S.A.I. Bullock, Director - Program Development
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February, 1982

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M.P. Yakimishyn
Director of Research

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I. INTRODUCTION

Within the province of Manitoba, 10 schools have classes which are participating in an English-Ukrainian Bilingual Program (hereafter, referred to as the Program). Under this Program, which was instituted in September, 1979, instruction is provided in English for 50 per cent of the day and in Ukrainian for the remainder of the day for participating students in Grades One through Three. For those students in Kindergarten, all instructional time is to be conducted in Ukrainian, except in cases in which the teacher is concerned about the class' development of English language arts.

In order to meet the needs of the Program Development Branch, and to facilitate the decision of whether to extend the Program, the Research Branch was requested on December 15, 1980 to conduct an assessment designed to determine whether the Program objectives had been achieved.

The research objectives of the study were as follows:

Objective 1: To determine the extent to which students at each grade level were acquiring skills in Ukrainian Language Arts, English Language Arts, and the overall primary program;

Objective 2: To determine the extent to which students were acquiring an awareness of Ukrainian cultural heritage;

Objective 3: To determine the attitudes of students, parents, teachers and administrators towards the English-Ukrainian Bilingual Program;

Objective 4: To determine the additional costs of offering the English-Ukrainian Bilingual Program; and,

Objective 5: To identify aspects of program implementation.

All of the research objectives have been addressed in the report "An Evaluation of the First Two Years of the English-Ukrainian Bilingual Program: Interim Report", July, 1981. Since skill development at the time of the interim report was measured only until the end of Grade Two, and due to the limitations associated with the initial skill assessment, evaluation of Ukrainian and English language skills was repeated during the 1981-82 school year. Therefore, evaluation of language skills is the focus of this final report.

II. METHODOLOGY

1. Operational Definitions

For the purpose of the interim report and this final report, the following definitions apply:

Program students - refers to students who were enrolled in the English-Ukrainian Bilingual Program.

Control students - refers to students who were enrolled in English unilingual classes and were selected by principals to serve as control subjects in the assessment of skill development.

Significant (or statistically significant) - refers to the probability that differences between groups were due to the Program, as opposed to a chance occurrence.

Ukrainian Language Tests - refer to assessment tests of skill development in the Ukrainian language, as developed by Edmonton Public School Board, and adapted for use in Manitoba.

2. Limitations

While reading this report, it is important to keep in mind the limitations inherent in the study. Due to the nature of the sample, the findings reflect student achievement within Manitoba's English-Ukrainian Bilingual Program and the control sample. Therefore, any conclusions drawn from the sample may not be generalized beyond the Manitoba Program.

Second, complete subtest results were not available for all students due to absences during the testing periods. Although only a few scores were unavailable, the absence of these scores, and the potential impact of such missing data, should be recognized.

Third, selection of control group students for the assessment of English language skills was made by the principal in each school. Moreover, results were not always available for students in the Program and a comparative group of students in the regular program within the same school. At another school in which English language development was assessed, different English language programs were conducted between Program and control classrooms of students. Thus, as a result of the above factors, the Program and control groups may have differed slightly in their English language learning experiences.

Fourth, some schools decided not to administer the complete Grade Three English language achievement battery. Since the decision applied to Program and control classes equally, the two samples were probably not biased by the decision. However, the smaller sample sizes for some of the English language skills may have resulted in less reliable results for the subtests in question.

Fifth, Ukrainian language testing occurred over a period of approximately two months. Thus, average achievement scores as reported in the results section may not be representative of the performance of students tested at the beginning or end of the two month period.

3. Instrumentation

Skill assessment of Ukrainian language arts development was conducted using Ukrainian Language Tests, as developed by the Edmonton Public School Board and modified by the Ukrainian Language Consultant to ensure consistency with the suggested Manitoba curriculum.

Among those students currently enrolled in Grade One, in the Program and control classes, skill assessment of English language arts development was conducted using the Metropolitan Achievement Test - Primer Level (MAT). Among those students currently enrolled in Grade Three, Canadian Tests of Basic Skills - Level 9 (CTBS) was employed.

4. Sample Selection and Response Rates

The sample for the assessment of Ukrainian language arts development consisted of all children in Grades One and Three of the Program[1] in the 1981/82 school year, excepting those students who attended Kindergarten in the Program during the 1980/81 school year. Thus, all students tested in Grade One were in their first year of the Program. Ukrainian Language Tests scores were collected on a total of 86 students in Grade One and 85 students in Grade Three.

[1] In order to minimize disruption of classroom activities, only those students in the first and final years of the present Program were tested.

The sample for the assessment of English language arts development consisted of all students in Grades One and Three who were enrolled in the Program in the 1981/82 school year. As well, a control class of students in the regular program was chosen from each school participating in the skill assessment, except for the one school which did not have a regular program class at the Grade One level.

MAT scores were collected on a total of 292 students: 131 Program students and 161 control group students. CTBS scores were collected on a total of 193 students: 88 Program students and 105 control group students. Because a number of schools did not administer all of the CTBS subtests, the number of students who wrote each subtest are presented in Appendix A. Fewer students wrote the capitalization, punctuation, and language use subtests than wrote the vocabulary, reading and spelling subtests.

5. Field Methods

Ukrainian Language Tests were administered by the Ukrainian language consultant during the first two weeks of December, 1981 and first three weeks of January, 1982. Tests were scored by the language consultant, and the results for each student were forwarded to the Research Branch. Identification numbers, rather than students' names, were used during data analysis in order to maintain confidentiality.

MAT and CTBS tests were administered by either the classroom or resource teacher within each school during the first two weeks of December, 1981 and were sent to the Research Branch for scoring. In order that confidentiality could be retained during data analysis, only school and sample (Program or control) identification numbers were assigned to students' scores. Graded tests were returned to the appropriate schools.

III. RESULTS

1. Ukrainian Language Development

A. Grade One Level

Raw scores for each Ukrainian test were converted to percentage correct scores (Table 1). Students averaged 74% correct on vocabulary identification, 28% correct on oral vocabulary, 43% correct on directions, and 32% correct on comprehension.

B. Grade Three Level

Raw scores were converted to percentage correct scores for each Ukrainian test (Table 2). Students' average scores were 63% correct for comprehension and identification, 62% correct for reading, 34% correct for writing, and 74% correct for oral skills.

2. English Language Development

A. Grade One Level

Raw scores of student performance were analyzed for reading and language skills as measured by the MAT.[2] Average scores of students in the Program and control classes are presented in Table 3 for each skill. For both subtests, students in the control classrooms had significantly higher scores than students in the Program classrooms.

B. Grade Three Level

Raw scores of student performance were analyzed for vocabulary, reading, spelling, capitalization, punctuation, and language use as measured by the CTBS. Average scores of students in the Program and control classes are presented in Table 4 for each skill. Students in the Program had significantly better scores on the punctuation subtest than students in the control group. No other differences between scores on subtests were statistically significant.

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[2]Details of all analyses are available from the Research Branch.

TABLE 1

AVERAGE PERCENTAGE SCORES ON UKRAINIAN LANGUAGE TESTS FOR STUDENTS IN GRADE ONE*

Test	(N)	Average Score
Vocabulary Identification	(84)	74%
Oral Vocabulary	(84)	28%
Directions	(84)	43%
Comprehension	(84)	32%

*Scores for individual subtests are presented in Appendix B, Table B.1.

TABLE 2

AVERAGE PERCENTAGE SCORES ON UKRAINIAN LANGUAGE TESTS FOR STUDENTS IN GRADE THREE**

Test	(N)	Average Score
Comprehension and Identification	(85)	63%
Reading	(83)	62%
Writing	(83)	34%
Oral Skills	(84)	74%

**Scores for individual subtests are presented in Appendix B, Table B.2.

TABLE 3

AVERAGE SCORES ON THE METROPOLITAN ACHIEVEMENT TEST - PRIMER LEVEL FOR PROGRAM AND CONTROL GROUPS OF STUDENTS IN GRADE ONE

Subtest	Type of Program	
	Program (Average Scores)	Control
Reading*	19.0	22.6
Language*	17.0	18.6

*Indicates a statistically significant difference between scores of students in the Program and scores of students in the control group.

TABLE 4

AVERAGE SCORES ON THE CANADIAN TEST OF BASIC SKILLS - LEVEL NINE FOR PROGRAM AND CONTROL GROUPS OF STUDENTS IN GRADE THREE

Subtest	Type of Program	
	Program (Average Scores)	Control
Vocabulary	15.6	14.6
Reading	28.4	26.1
Spelling	17.2	15.5
Capitalization	16.9	16.4
Punctuation*	19.3	15.2
Language Use	17.4	17.5

*Indicates a statistically significant difference between scores of students in the Program and scores of students in the control group.

IV. OBSERVATIONS

A. Analysis of students' Ukrainian language scores revealed that after four to five months in the Program, students could correctly identify about three-quarters of the words on which they were tested. However, vocabulary, directions, and comprehension skills were not as advanced as vocabulary identification skills. After approximately two and one-half years in the Program, students' were performing at about the 75% level on oral skills, and were developing reading and writing skills.

B. Analysis of students' English achievement scores revealed that, overall, after four months in the Program, students' language skills were not as advanced as those of students in the control group. However, by Grade Three, these differences seemed to have disappeared, with students in the Program performing at least as well as students in the control group on tests of English language skills.

V. CONCLUSIONS/IMPLICATIONS

A. Analysis of Grade One Ukrainian language skills revealed that students are developing an understanding of the language. When compared with the Kindergarten and Grade One results reported in the interim evaluation, students in Grade One (1981/82) performed at a level comparable to pretesting of students' skills during the fall of the Program, and at a level below that of students' skills at the end of one year in the Program. Thus, it is likely that by the end of the 1981/82 school year, students in Grade One will be performing at a level comparable to that of students who previously completed one year of the Program.

B. Analysis of Grade Three Ukrainian language skills revealed that students appeared to be continuing to develop oral, comprehension, identification, and reading skills. As well, students were beginning to develop writing skills in the Ukrainian language. If this level of achievement is satisfactory at this point in the Program, then it can be concluded that the English-Ukrainian Bilingual Program is achieving its stated objectives with respect to Ukrainian.

C. Although students in Grade One of the Program performed less well on tests of English language development than students in a regular program, these differences disappeared by Grade Three. Moreover, assessment of scores reported in the interim evaluation suggests that differences in language development should disappear by the end of Grade One. Therefore, it does not appear that participation in the Program hinders English language development by the end of the primary grades.

D. Overall, from the results of both the interim and final evaluations, it appears as though students in the English-Ukrainian Bilingual Program are developing English language arts skills at a level comparable to that displayed by students in the regular program, as well as learning the Ukrainian language.

APPENDIX A:

NUMBER OF STUDENTS
COMPLETING EACH CTBS SUBTEST

TABLE A.1

NUMBER OF STUDENTS IN THE PROGRAM AND CONTROL SAMPLES
FOR EACH SUBTEST OF THE CANADIAN TEST OF BASIC SKILLS - LEVEL NINE

Subtest	Type of Program					
	Program		Control		Total	
	(N)	%	(N)	%	(N)	%
Vocabulary	(86)	45	(105)	55	(191)	100
Reading	(87)	45	(105)	55	(192)	100
Spelling	(86)	45	(104)	55	(190)	100
Capitalization	(52)	49	(55)	51	(107)	100
Punctuation	(51)	49	(54)	51	(105)	100
Language Use	(51)	49	(55)	51	(106)	100

APPENDIX B:

SUBTEST SCORES ON
UKRAINIAN LANGUAGE TESTS

TABLE B.1

AVERAGE AND MAXIMUM POSSIBLE SCORES ON UKRAINIAN LANGUAGE TESTS
INDIVIDUAL SUBTESTS FOR STUDENTS IN GRADE ONE

Test Subtest	(N)	Average Score	Maximum Score Possible
Vocabulary Identification			
Nouns	(85)	14.7	20
Adverbs	(85)	.8	1
Adjectives	(85)	2.5	3
Verbs	(84)	4.2	6
Oral Vocabulary			
Nouns	(84)	5.7	15
Verbs	(84)	1.4	10
Directions	(84)	4.3	10
Comprehension	(84)	3.2	10

TABLE B.2

AVERAGE AND MAXIMUM POSSIBLE SCORES ON UKRAINIAN LANGUAGE TESTS
INDIVIDUAL SUBTESTS FOR STUDENTS IN GRADE THREE

Test Subtest	(N)	Average Score	Maximum Score Possible
Comprehension and Identification			
Identify beginning letters	(85)	8.1	12
Identify ending letters	(85)	2.4	6
Silent reading comprehension	(85)	3.6	6
Listening comprehension-story	(85)	3.7	5
Listening comprehension-riddles	(85)	3.1	4
Reading			
Sequencing	(84)	2.6	6
Synonyms	(84)	2.5	4
Antonyms	(84)	3.1	5
Same or different	(84)	2.5	4
Prepositions	(84)	2.2	3
Pronouns	(83)	2.1	3
Reading for detail	(84)	4.1	6
Reading for main idea	(84)	3.8	6
Writing			
Dictation-words	(84)	2.1	5
Dictation-sentences and phrases	(84)	1.4	6
Written comprehension	(83)	1.5	6
Description sentences	(83)	1.4	6
Completing sentences	(83)	3.4	6
Oral Skills			
Reading pronunciation	(84)	4.9	8
Reading intonation	(84)	7.4	8
Response to pictures	(84)	6.9	10